Print of the first of the first

Chillian

What is claimed is:

- 1. An apparatus for depicting contour lines on the surfaces of a model, the apparatus comprising a bed for supporting the model, and at least one laser for projecting a plane of light at a predetermine height from the bed.
- 2. The apparatus according to claim 1 wherein the at least one laser projects a plurality of planes of light each at a different predetermined height from the bed.
- 3. The apparatus according to claim 1 wherein there are a plurality of lasers, and each laser projects a plane of light at a different predetermined height from the bed.
- 4. The apparatus according to claim 1 further comprising a plurality of generally vertical walls forming a work space on the bed, and wherein the surface at least some of the generally vertical walls are mirrored to reflect laser light to form a plane of light above the surface of the bed.
- 5. An apparatus for depicting contour lines on the surface of a model; the apparatus comprising a generally horizontal work surface for supporting a model, at least one vertical sidewall at least partially surrounding the work surface, a reflector on at least a portion of the side wall; and at least one laser source for projecting a fan-shaped beam across the horizontal work surface to the reflector.
- 6. The apparatus according to claim 5 wherein there are a plurality of laser sources at different heights relative to the work surface.
- 7. The apparatus according to claim 6 wherein the fan shaped beams of each of the laser sources are equally vertically spaced.
- 8. The apparatus according to claim 6 wherein the color of adjacent fan shaped beams are different.
- 9. An apparatus for depicting contour lines on the surface of a model, the apparatus comprising: a generally horizontal work surface for supporting the model; at least one vertical sidewall at least partially surrounding the work surface, and means for generating a plurality of planes of laser light across the generally horizontal work surface which illuminate contour lines on a model on the work surface.

- 10. The apparatus according to claim 9 wherein color of adjacent planes of laser light are different.
- 11. The apparatus according to claim 9 wherein the planes of laser light are equally spaced.
- 12. The apparatus according to claim 9 wherein the means for generating a plurality of planes of laser light comprise at least one laser source, and reflectors on at least a portion of the vertical sidewall.
- 13. An apparatus for depicting contour lines on the surface of a model, the apparatus comprising a bottom, a plurality of sidewalls surrounding the bottom, at least one internal wall inside the sidewalls defining a modeling area and a non-modeling area; at least one window in the interior wall, and at least one laser source in the non-modeling area of the apparatus adapted to project a generally fan-shaped laser beam through the at least one window in the interior wall and across the modeling area.
- 14. The apparatus according to claim 13 wherein at least portions of the walls surrounding the modeling area are reflective to reflect the fan-shaped laser beams.
- 15. A method of depicting contour lines on surfaces of a model, the method comprising projecting a plurality of planes of light in spaced relation over the surface of a support to illuminate contour lines on objects on the surface that break the planes of light.
- 16. The method according to claim 15 wherein the planes of light are generally horizontal.
- 17. The method according to claim 16 wherein the planes of light are substantially equally vertically spaced.
- 18. The method according to claim 15 wherein the plurality of planes of light are protected horizontally over the surface at different heights.
- 19. A method of depicting contour lines on a model on a work surface surrounded by a sidewall, the method comprising projecting a plurality of planes of laser light horizontally across the work surface, and different levels to illuminate contour lines on the model where the planes impinge the model.